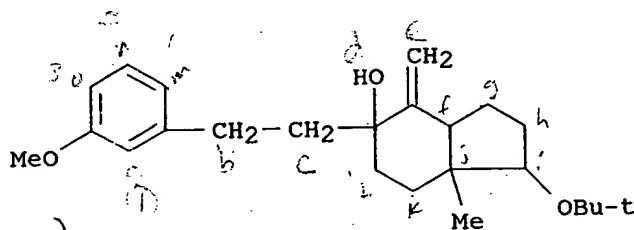


Cohen

09/243,158

L4 ANSWER 2 OF 2 CA COPYRIGHT 2000 ACS  
 AN 82:140369 CA  
 TI Novel total syntheses of (+)-estrone 3-methyl ether,  
 (+)-13.beta.-ethyl-3-methoxygona-1,3,5(10)-trien-17-one, and (+)-equilenin 3-methyl ether  
 AU Cohen, Noal; Banner, Bruce L.; Eichel, Wayne F.; Parrish, David R.; Saucy, Gabriel; Cassal, Jean M.; Meier, Werner; Fuerst, Andor  
 CS Chem. Res. Dep., Hoffmann-La Roche Inc., Nutley, N. J., USA  
 SO J. Org. Chem. (1975), 40(6), 681-5  
 CODEN: JOCEAH  
 DT Journal  
 LA English  
 IT 53684-32-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 RN 53684-32-5 CA  
 CN 1H-Inden-5-yl, 1-(1,1-dimethylethoxy)octahydro-5-[2-(3-methoxyphenyl)ethyl]-7a-methyl-4-methylene- (9CI) (CA INDEX NAME)



$$\frac{102(b)}{29}$$

$$\frac{103}{39}$$

A), B), or C)

$$R_a = R_i \rightarrow H$$

$$R_b = R_i \rightarrow H$$

$$R_c = R_i \rightarrow H$$

$$R_d = OR_i \rightarrow R_i = H$$

$$R_e = R_i \rightarrow \text{alkenyl} \rightarrow =CH_2$$

$$R_f = R_i \rightarrow H$$

$$R_g = R_i \rightarrow H$$

$$R_h = R_i \rightarrow H$$

$$R_i = OR_i \rightarrow R_i \rightarrow \text{alkyl} \rightarrow \text{Bu-t}$$

$$R_j = R_i \rightarrow \text{alkyl} \rightarrow \text{Me}$$

$$R_k = R_i \rightarrow H$$

$$R_l = R_i \rightarrow H$$

$$R_m = R_i \rightarrow H$$

$$R_n = R_i \rightarrow H$$

$$R_o = R_i \rightarrow H$$

$$Z = COR_i \rightarrow R_i \rightarrow \text{alkyl} \rightarrow \text{Me}$$